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 UTLEY, E.E. Carolina Power & Light Co.
 RECIP. NAME RECIPIENT AFFILIATION
 EISENHUT, D.G. Division of Licensing

SUBJECT: Forwards commitments for completion of items contained in
 NUREG-0737, "Clarification of TMI Action Plan Requirements."

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Carolina Power & Light Company

December 15, 1980

File: NG-3514(R)

Serial No.: NO-80-1871

Mr. Darrell G. Eisenhut, Director
Division of Licensing
United States Nuclear Regulatory Commission
Washington, D. C. 20555

H. B. ROBINSON STEAM ELECTRIC PLANT UNIT NO. 2
DOCKET NO. 50-261
LICENSE NO. DPR-23
POST TMI REQUIREMENTS CONTAINED IN NUREG-0737

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Dear Mr. Eisenhut:

As requested by your letter of October 31, 1980, Carolina Power & Light Company (CP&L) hereby forwards its commitments for completion of the items contained in NUREG-0737, "Clarification of TMI Action Plan Requirements" which are applicable to the H. B. Robinson, Unit No. 2 (HBR). Enclosure 1 contains a listing of the items potentially applicable to H. B. Robinson, the NRC requested schedule, and CP&L's commitment. Where CP&L's schedule is different from that requested, an attachment to Enclosure 1 has been provided. These attachments clarify CP&L's position on certain items or justify a schedule which differs from the one requested.

We believe that a number of the items required by your letter may require further definition of the requirements and acceptance criteria through discussions with NRC Staff. If this should cause a change in scope of the items that could impact the implementation schedule for Robinson, we will inform you promptly so that any problems associated with implementation may be resolved to our mutual agreement. As part of these discussions, and following a comprehensive review of the requirements, CP&L may wish to propose alternatives to the strict interpretation of some requirements. Such alternatives may include: a) modifications other than those suggested by the requirement which are of equal or greater safety improvement; b) design and test of hardware modifications on a single typical plant followed by implementation on remaining plants; c) exception to some requirements whose implementation is believed unnecessary. Additionally, implementation of plant modifications may be dependent on availability of equipment and purchasing lead time. It is our intent to work on the study, design, engineering, procurement, and construction of these items in a manner that will reduce or eliminate

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these concerns; however, if equipment availability becomes a problem that will unavoidably delay implementation of any requirement, we intend to petition for relief of the implementation schedule. Finally, you should realize that these requirements place a significant strain on CP&L's and the industry's resources. We hope that this is recognized by you and the remainder of the NRC Staff, and that you will work with us where necessary to ensure that correct implementation of the requirements are made only to increase the overall safety of the H. B. Robinson Plant.

We trust this letter is responsive to your requirements at this time, and stand prepared to provide additional information if you so desire.

Yours very truly,



E. E. Utley
Executive Vice President
Power Supply and
Engineering & Construction

JJS/jc (1288)
Attachments

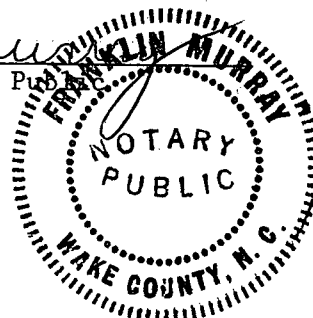
cc: Mr. J. D. Neighbors (NRC)

Sworn to and subscribed before me this 15th day of December 1980

Franklin Murray

Notary Public

My commission expires: October 4, 1981



H. B. ROBINSON POST TMI REQUIREMENTS PER NUREG 0737

Enclosure 1

<u>ITEM</u>	<u>TITLE</u>	<u>DESCRIPTION</u>	<u>NRC IMPL- MENTATION SCHEDULE</u>	<u>LICENSE SUBMITTAL REQUESTED BY</u>	<u>CP&L COMMITMENT</u>	<u>REFERENCES</u>
I.A.1.1	Shift Technical advisor	3. Trained per LL Cat B	1/1/81	1/1/81	1/1/81	
		4. Describe long-term program	1/1/81	1/1/81	1/1/81	
I.A.1.3	Shift manning	2. Min shift crew	7/1/82	11/1/80	7/1/82	CP&L ltr. 11/5/80 See Attachment 16
I.A.2.1	Immediate upgrading of RO and SRO training and qualifications	2. SROs be ROs 1 yr	12/1/80	None	Complete	
I.A.3.1	Revise scope and criteria for licensing exams	3. Simulator exams	6/1/80	None	Implemented	
I.C.1	Short-term accident and procedures review	2. Inadequate core cooling				
		a. Reanalyze and propose guidelines	1/1/81	1/1/81	1/1/81	
		b. Revise procedures	First refueling outage after 1/1/82	TBD	See Attachment 1	
		3. Transients & accidents				
		a. Reanalyze and propose guidelines	1/1/81	1/1/81	1/1/81	
		b. Revise procedures	First refueling outage after 1/1/82	TBD	See Attachment 1	

ITEM	TITLE	DESCRIPTION	NRC IMPLEMENTATION SCHEDULE	LICENSE SUBMITTAL REQUESTED BY	CP&L COMMITMENT	REFERENCES
I.C.5	Feedback of operating experience	Licensee to implement procedures	1/1/81	None	1/1/81	
I.C.6	Verify correct performance of operating activities	Revise performance procedures	1/1/81	None	CP&L position will be provided by 1/1/81	Attachment 15
I.D.1	Control-room design reviews	Preliminary assessment and schedule for correcting deficiencies	TBD	4/82	See Attachment 2	
I.D.2	Plant-safety-parameter display console	1. Description 2. Installed 3. Fully implemented	TBD TBD TBD	Later		
II.B.1	Reactor-coolant-system vents	1. Design vents 2. Install vents (LL Cat B) 3. Procedures	7/1/81 7/1/82 1/1/82	7/1/81 7/1/81 1/1/81	Complete Complete TBD	CP&L ltr. 12/31/79 Attachment 3
II.B.2	Plant shielding	2. Plant modifications (LL Cat B) 3. Equipment qualification	1/1/82 6/30/82	1/1/81 (Deviation only) 1/1/82	Complete D-1/1/81 D-1/1/81 I-Consistent with IE Bulletin 79-01B	CP&L ltrs. 12/31/80 3/31/80
II.B.3	Postaccident sampling	2. Plant modifications (LL Cat B)	1/1/82	1/1/81 (Deviation only)	D-1/1/81 I-1/1/82	
II.B.4	Training for mitigating core damage	1. Develop training program	1/1/81	1/1/81	1/1/81	

<u>ITEM</u>	<u>TITLE</u>	<u>DESCRIPTION</u>	<u>NRC IMPL- MENTATION SCHEDULE</u>	<u>LICENSE SUBMITTAL REQUESTED BY</u>	<u>CP&L COMMITMENT</u>	<u>REFERENCES</u>
II.B.4 (Cont'd)		2. Implement program a. Initial b. Complete	4/1/81 10/1/81		4/1/81 10/1/81	
II.D.1	Relief & safety- valve test require- ments	2. RV & SV testing (LL Cat B) a. Complete testing b. Plant-specific report	7/1/81 10/1/81	7/1/81 1/1/82	In accordance with EPRI Program	Attachment 4
		3. Block-valve testing	7/1/82	7/1/82		
II.E.1.1	Auxiliary feedwater system evaluation	1. Short term 2. Long term	7/1/81 1/1/82	Plant specific Plant specific		
II.E.1.2	Auxiliary feedwater system initiation & flow	1. Initiation b. Safety grade 2. Flow indication c. Safety grade	7/1/81 7/1/81	1/1/81 1/1/81	Complete Complete	CP&L ltr. 12/31/79 CP&L ltr. 12/31/79
II.E.3.1	Emergency Power for pressurizer heaters	1. Upgrade power supply	1/1/80	1/1/81	Complete	CP&L ltr. 12/31/79
II.E.4.1	Dedicated hydrogen penetrations	2. Install	7/1/81	7/1/81	Complete	CP&L ltr. 12/31/79

ITEM	TITLE	DESCRIPTION	NRC IMPL- MENTATION SCHEDULE	LICENSE SUBMITTAL REQUESTED BY	CP&L COMMITMENT	REFERENCES
II.E.4.2	Containment isolation dependability	5. Cntmt pressure setpoint				
		a. Specify pressure	1/1/81	1/1/81	1/1/81	
		b. Modifications	7/1/81	1/1/81	None Planned	Attachment 5
		6. Cntmt purge valves	1/1/81	1/1/81	Complete	
		7. Radiation signal on purge valves	7/1/81	7/1/81	7/1/81	
II.F.1	Accident-monitoring	1. Noble gas	1/1/82	1/1/81 Submittal if deviation from position	D-3/1/81 I-1/1/82	Attachment 6
		2. Iodine/particulate sampling	1/1/82	1/1/81 Submittal if deviation from position	D-3/1/81 I-1/1/82	Attachment 6
		3. Containment high- range monitor	1/1/82	7/1/81 Submittal if deviation from position	D-7/1/81 I-1/1/82	
		4. Containment pressure	1/1/82	1/1/82	1/1/82	
		5. Containment water level	1/1/82	1/1/82	1/1/82	
		6. Containment hydrogen	1/1/82	1/1/82	1/1/82	
II.F.2	Instrumentation for detection of in- adequate core cooling	3. Install level instruments (LL Cat B)	1/1/82	1/1/81	D-4/15/81 I-1/1/82	Attachment 7

ITEM	TITLE	DESCRIPTION	NRC IMPL- MENTATION SCHEDULE	LICENSE SUBMITTAL REQUESTED BY	CP&L COMMITMENT	REFERENCES
II.K.2	Orders on B&W plants	13. Thermal-mechanical report	1/1/82	1/1/82	1/1/82	Attachment 8
		17. Voiding in RCS	1/1/82	1/1/82	1/1/82	
		19. Benchmark analysis of seq. AFW flow	1/1/82	1/1/82	1/1/82	
II.K.3	Final recommen- dations, B&O task Force	1. Auto PORV isolation				
		a. Design	7/1/81	7/1/81	D-7/1/81	Attachment 9
		b. Test/install	1st refuel 6 mo after staff approval	7/1/81		
		2. Report on PORV failures	1/1/81	1/1/81	3/1/81	Attachment 10
		3. Reporting SV & RV failures & challenges	1/1/81	1/1/81	Implementation Complete	
		5. Auto trip of RCPs				
		a. Propose modifi- cations	7/1/81	2/15/81	D-4/1/81	Attachment 11
		b. Modify	3/1/82	7/1/81		
		9. PID controller	1/1/81	12/1/80	Complete	CP&L ltr. 6/27/80
		12. Anticipatory trip on turbine trip				
		a. Confirmation or propose modifications	1/1/81	1/1/81	Complete	CP&L ltr. 6/27/80
		b. Modify	1st refuel 6 mo after staff approval	1st refuel	NA	

ITEM	TITLE	DESCRIPTION	NRC IMPL- MENTATION SCHEDULE	LICENSE SUBMITTAL REQUESTED BY	CP&L COMMITMENT	REFERENCES
II.K.3	Final recommen- dations, B&O task force (continued)	17. ECC system outage	1/1/81	1/1/81	1/1/81	
		25. Power on pump seals				
		a. Propose mods	1/1/82	1/1/82	D-1/1/82	Attachment 12
		b. Modifications	7/1/82	7/1/82		
		30. SB LOCA methods				
		a. Schedule outline	11/15/80	11/15/80	No action	CP&L ltr. 6/11/80
		b. Model	1/1/82	1/1/82		
		c. New analyses	1/1/83 or 1 yr after staff approval	1/1/83 or 1 yr after staff approval		
		31. Compliance with CFR 50.46	1/1/83 or 1 yr after staff approval	1/1/83	See Attachment 13	
III.A.1.2	Upgrade emergency support facilities	2. Design	TBD	TBD		
		3. Modifications	TBD	TBD		
III.A.2	Emergency preparedness	1. Upgrade emergency plans to App. E, 10 CFR 50	4/1/81	1/2/81	D-1/2/81	
		2. Meteorological data	6/1/83	1/2/81	See Attachment 14	
III.D.3.3	Inplant radiaiton	2. Modifications to accurately measure I ₂	1/1/81	1/1/81	1/1/81	
III.D.3.4	Control-room habitability	1. Review	1/1/81	1/1/81	1/1/81	
		2. Modification	1/1/83	1/1/81	D-1/1/81 I-1/1/83	

KEY

D - Documentation
I - Implementation
NA - Not Applicable

ATTACHMENT 1

Item I.C.1 - Guidance for the Evaluation and Development of Procedures for Transients and Accidents

Carolina Power & Light Company (CP&L) cannot commit to a specific schedule for revision of procedures until the Westinghouse Owners' Group, of which CP&L is a member, completes these studies and provides to CP&L and the NRC the requested procedure guidelines. Upon completion of a CP&L review and NRC review and approval, a schedule for revision of procedures and implementation of revised procedures will be determined.

ATTACHMENT 2

Item I.D.1 - Control-Room Design Reviews

Carolina Power & Light Company cannot commit to a specific schedule for design reviews and modifications of the control room until the applicable guidance, criteria and requirements have been issued by the NRC. Upon issuance and subsequent CP&L review of these guidelines and requirements, CP&L will work with the NRC to determine a timely schedule for this review.

ATTACHMENT 3

Item II.B.1 - Reactor Coolant System Vents

The design for the Reactor Coolant System Vents was submitted by Carolina Power & Light Company (CP&L) to the NRC on December 31, 1979 (CP&L letter GD-79-3306). The NRC's letter of April 13, 1980 approved that design.

The vent system was installed at H. B. Robinson during the August - September 1980 refueling outage.

Since installation, a problem with inadvertent valve lift has been discovered. The system has been placed in a condition to preclude inadvertent valve operation pending resolution of this design problem.

Based on the above, CP&L believes that it has completed items II.B.1-1 and II.B.1-2. Upon resolution of the valve lift problem, CP&L will document that resolution and provide the requested procedures of item II.B.1-3.

ATTACHMENT 4

Item II.D.1 - Relief & Safety Valve Test Requirements

As noted in its submittal of December 31, 1979, Carolina Power & Light Company (CP&L) is a participant in the EPRI valve testing program. The program schedule as developed by EPRI is designed to meet the NRC schedule as detailed in a letter of December 15, 1980 from Mr. R. C. Youngdahl to Mr. D. G. Eisenhut. CP&L will provide the test results and a plant specific report in a timely manner after receipt of the data from EPRI. CP&L cannot, however, commit to a specific submittal schedule until test results are received from EPRI.

ATTACHMENT 5

Item II.E.4.2 - Containment Isolation Dependability

In response to position 5, Carolina Power & Light Company (CP&L) will provide and justify by January 1, 1981, the minimum containment pressure that will be used to initiate containment isolation. CP&L intends to justify the appropriateness of the existing setpoint.

ATTACHMENT 6

Item II.F.1 - Additional Accident-Monitoring Instrumentation

1. Noble Gas Effluent Monitor -Due to changes imposed by NUREG 0737, the required documentation of the final design details will not be available until March 1, 1981. Any deviations from the NRC requirements will be documented at that time. The system will be installed by January 1, 1982. Since this is a post-implementation review item, as indicated in Enclosure 1 of NUREG 0737, the delay in submittal of information is not deemed significant.
2. Iodine/Particulate Sampling - Due to changes imposed by NUREG 0737, the required documentation of the final design details will not be available until March 1, 1981. Any deviations from the NRC requirements will be documented at that time. The system will be installed by January 1, 1982. Since this is a post-implementation review item, as indicated in Enclosure 1 of NUREG 0737, the delay in submittal of information is not deemed significant.

ATTACHMENT 7

Item II.F.2 - Instrumentation for Detection of Inadequate Core Cooling

As discussed in its letter of December 31, 1979, Carolina Power & Light Company (CP&L) has purchased a Westinghouse designed differential pressure reactor vessel level sensing system for H. B. Robinson. The documentation for the system as requested by NUREG 0737, however, will not be available until April of 1981. CP&L will provide that documentation by April 15, 1981.

While CP&L currently intends to have the purchased system operational by January 1, 1982, it is concerned with the potential ambiguities of the system and whether or not they meet NRC requirements. We will address these concerns in more detail in our April 15, 1981 submittal, and will request NRC concurrence with the design of the system prior to installation. We believe this important step is not presently allowed for in the schedule contained in NUREG 0737, and request that it be addressed so that nothing is installed in the plant that will degrade plant safety by its presence.

ATTACHMENT 8

Item II.K.2.13 - Thermal Mechanical Report - Effect of High-Pressure Injection
on Vessel Integrity for Small-Break Loss-of-Coolant Accident
with No Auxiliary Feedwater

A program consisting of analysis for generic Westinghouse PWR plant groupings will be completed and documented to the NRC by January 1, 1982 by the Westinghouse Owners' Group, of which Carolina Power & Light Company is a member. This program will address the NRC requirements of detailed analysis of the thermal-mechanical conditions in the reactor vessel during recovery from small breaks with an extended loss of all feedwater.

If required, additional analysis, specific to H. B. Robinson Unit No. 2, will be provided following the completion of this generic program. A schedule for the H. B. Robinson analysis will be determined based on the results of the generic analysis.

ATTACHMENT 9

Item II.K.3.1 - Installation and Testing of Automatic Power-Operated
Relief Valve Isolation System

Upon completion of the overall safety evaluation required by Item II.K.3.2, which is expected to be complete by March 1, 1981, Carolina Power & Light Company will determine the necessity of incorporating an automatic PORV isolation system.

Based on the results of the evaluation mentioned above, the schedule for any further submittals/modifications will be decided.

ATTACHMENT 10

Item II.K.3.2 - Report on Overall Safety Effect of Power-Operated Relief Valve Isolation System

Carolina Power & Light Company (CP&L), as a member of the Westinghouse Owners' Group, will submit in conjunction with the Owners' Group a report concerning the overall safety effect of the PORV isolation system. The Westinghouse Owners' Group is in the process of developing a report, including historical valve failure rate data and documentation of actions taken since the TMI-2 event to decrease the probability of a stuck-open PORV, to address the NRC concerns of Item II.K.3.2. However, due to the time-consuming process of data gathering, breakdown, and evaluation, this report is scheduled for submittal to the NRC on March 1, 1981.

ATTACHMENT 11

Item II.K.3.5 - Automatic Trip of Reactor Coolant Pumps During Loss-of-Coolant Accident

Carolina Power & Light Company, as a member of the Westinghouse Owners' Group, is represented by this group's studies and submittals. The Owners' Group resolution of this issue has been to perform analyses using the Westinghouse small break evaluation model, WFLASH, to show that ample time is available for the operator to trip the reactor coolant pumps following certain size small breaks (see WCAP-9584). In addition, the Owners' Group is supporting a best estimate study using the NOTRUMP computer code to demonstrate that tripping the reactor coolant pump at the worst trip time, after a small break will lead to acceptable results.

The Westinghouse Owners' Group is performing blind post-test predictions of LOFT experiment L3-6 for both of the analysis efforts mentioned above. The input data and model to be used with WFLASH on LOFT L3-6 has been submitted to the staff on 12/1/80 (NS-TMA-2348). The information to be used with NOTRUMP on LOFT L3-6 will be submitted prior to performance of the L3-6 test as stated in letter OG-45 dated 12/3/80.

The LOFT prediction from both models will be submitted to the staff on February 15, 1981 given that the test is performed on schedule. The best estimate study is scheduled for completion by April 1, 1981.

Based on these studies, the Westinghouse Owners' Group believes that resolution of this issue will be achieved without any design modifications. In the event that this is not the case, a schedule will be provided for potential modifications.

ATTACHMENT 12

Item II.K.3.25 - Effect of Alternating-Current Power on Pump Seals

Carolina Power & Light Company (CP&L) is currently in the process of evaluating the reactor coolant pump seal coolers. Therefore, CP&L cannot commit at the present time to a schedule for modifications. Upon completion of this evaluation, CP&L will determine a schedule for proposal and implementation of any required modifications.

ATTACHMENT 13

Item II.K.3.31 - Compliance with 10CFR 50.46

CP&L cannot commit to the schedule for this item until the results of Item II.K.3.30 are known. As stated in our letter of June 11, 1980, CP&L believes that the role of the fuel vendor (Exxon Nuclear Company) with regard to Item II.K.3.30 must be resolved and that the work being done by the NSSS vendor (Westinghouse) is applicable to H. B. Robinson. Upon completion of Item II.K.3.30 by the NSSS vendor, CP&L will work with the NSSS vendor and NRC to provide any required analysis in a timely manner.

ATTACHMENT 14

Item III.A.2.2 - Meteorological Data

To date, CP&L has not received the finalized versions of NUREG 0654, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants" or NUREG 0696, "Functional Criteria for Emergency Response Facilities". Therefore, CP&L cannot commit to the schedule provided. Upon receipt of the above documents and after appropriate time to analyze them, CP&L will work with the NRC to provide the required capabilities in a timely manner.

ATTACHMENT 15

Item I.C.6 - Verify Correct Performance of Operating Activities

This item is a new item not previously required of operating plants, and requires detailed study to assess the impact of requirements on plant operating practices. Therefore, CP&L cannot commit to full implementation by January 1, 1981. CP&L, however, will provide by January 1, 1981 a description of measures being performed at H. B. Robinson in this area and CP&L's position on the remaining portions of the item.

ATTACHMENT 16

Item I.A.1.3 - Shift Manning

As stated in Carolina Power & Light Company's letter of November 5, 1980, H. B. Robinson intends to meet the shift manning requirements outlined in D. G. Eisenhut's letter of July 31, 1980 by July 1, 1982. Additionally, CP&L has adopted an overtime policy generally consistent with the concerns expressed in the July 31, 1980 letter. CP&L, however, believes that some details of the overtime restrictions as stated in NUREG 0737 are overly prescriptive, detrimental to an orderly life for our personnel and potentially harmful to safety. Therefore, CP&L will address these items in detail in a submittal to the NRC by January 15, 1981 and propose specific alternatives to those requirements expressed in NUREG 0737.